

## Physicochemical, Heavy Metals Analysis of Some Multi-Floral Algerian Honeys

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**Abstract :** The characterization of some Algerian honey was carried out on the basis of their physico-chemical properties: moisture, hydroxy methyl furfural, diastase activity, pH, free, total and lactic acidity, electrical conductivity, minerals and proline content. Studied samples are found to be low in moisture and therefore safe from fermentation, low in HMF level and high in diastase activity. Additionally the diastase activity and the HMF content are widely recognized parameters indicating the freshness of honey. Phenolic compounds present in honey are classified into two groups - simple phenols and polyphenols. The simple phenols in honey are various phenol acids, but polyphenols are various flavonoids and flavonides. The aim of our work was to determine antioxidant properties of various Algerian honey samples - the total phenol content, total flavonoids content, as well as honey anti radical activity. The quality of honey samples differs on account of various factors such as season, packaging and processing conditions, floral source, geographical origin and storage period. It is important that precautions should be taken to ensure standardization and rationalization of beekeeping techniques, manufacturing procedures and storing processes to improve honey quality.

**Keywords :** honey, physico-chemical characterization, phenolic compound, HMF, diastase activity

**Conference Title :** ICPPNP 2014 : International Conference on Pharmacognosy, Phytochemistry and Natural Products

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** November 28-29, 2014